We claim

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A thermoplastic molding composition, comprising

a polyamide A1), containing at least one end group derived from a piperidine compound of the formula (I)

$$R = \begin{bmatrix} R^2 & R^3 \\ N-R^1 & (I) \end{bmatrix}$$

where

10 R is an amide-forming group R⁷ or a functional group R⁸ which bears from 1-4 identical or different amide-forming groups R⁷.

R1 is H, C1-C20-alkyl, cycloalkyl, benzyl, or OR6, where

R⁶ is H, C₁-C₂₀-alkyl, cycloalkyl, or benzyl,

 R^2 , R^3 , R^4 and R^5 , independently of one another, are C_1 - C_{10} -alkyl, where R^1 , R^2 , R^3 , R^4 and R^5 may be different or identical, and

R⁷ has been selected from the group consisting of -(NHR⁹), where R⁹ is H, alkyl having from 1 to 8 carbon atoms, cycloalkyl having from 3 to 10 carbon atoms, or alkylene having from 2 to 20 carbon atoms, carboxy, and carboxylic acid derivatives, and

B) a copolymer, selected from

B1) a rubber-free random copolymer, containing, as monomeric units,

b11) a styrene monomer,

b12) a monomer which contains a functional group which can react with the end groups of the polyamide present in component A), and

b13) a monomer which contains no functional groups which react with the end groups of the polyamide present in component A),

30 B2) a block copolymer of Y-X structure, containing

B21) from 95 to 99.5% by weight of block Y, containing, as monomeric units

b21) a mixture composed of

b211) a styrene monomer, and

b212) a comonomer other than maleic anhydride, or

b22) an ethylenically unsaturated ester

and

B22) from 0.5 to 5% by weight of block X, composed of a styrene monomer and of a copolymerizable anhydride, or of a copolymerizable acid, or of a mixture of these, as monomeric units, where the block X has, in essence, a strictly alternating structure;

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where the entirety of the components B21) and B22) is 100%, and

- B3) a rubber-free, random copolymer, containing, as monomeric units
 - b31) methyl methacrylate,
 - b32) a copolymerizable anhydride, or a copolymerizable acid, or a mixture of these, and
 - b33) also, if desired, methacrylic esters or acrylic esters, or a mixture of these.
- 15 2. A thermoplastic molding composition as claimed in claim 1, where the polyamides A) have at least one end group derived from a piperidine compound, where R is a group of the formula -NH-R⁸-NH-, where R⁸ is an alkylene group having from 1 to 20 carbon atoms.
- 20 3. A thermoplastic molding composition as claimed in claim 1 or 2, where component A) is a mixture composed of polyamide A1) and of a polyamide A2) which contains no end groups which derive from a piperidine compound.
- A thermoplastic molding composition as claimed in any of claims 1 to 3, where,
 as additional component C), a graft copolymer C1) is present, containing a rubber as graft base c11) and a graft c12) based on an unsaturated monomer.
 - A thermoplastic molding composition as claimed in any of claims 1 to 3, where, as additional component, a rubber-free matrix polymer C2) is present, which in essence comprises, as monomeric units,
 - c21) a styrene monomer or a (meth)acrylic ester, and, if desired,
 - c22) an unsaturated nitrile, maleimide, or maleic anhydride, or a mixture of these.
 - A thermoplastic molding composition as claimed in any of claims 1 to 4, where component C) is a mixture composed of two graft copolymers C1) whose rubber contents differ from one another by at least 5% by weight.

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A thermoplastic molding composition as claimed in any of claims 1 to 5, comprising from 0.3 to 1.5% by weight, based on the total weight of the molding composition, of a stearate or silicone oil, or a mixture of these.

- 8. A process for preparing thermoplastic molding compositions as claimed in any of claims 4 to 7, which comprises, in a first step, preparing a graft copolymer P) from a portion of component A) and the entire amount of component B), and, in a second step, mixing the graft copolymer P) with the other components and with the remaining amount of component A).
- A graft copolymer, obtainable by grafting a polyamide A1 containing at least one
 end group derived from a piperidine compound of the formula

$$R \xrightarrow{R^2 R^3} N - R^1 \qquad (I)$$

where

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- R is an amide-forming group R⁷ or a functional group R⁸ which bears from 1-4 identical or different amide-forming groups R⁷.
- R1 is H, C1-C20-alkyl, cycloalkyl, benzyl, or OR6, where
- R⁶ is H, C₁-C₂₀-alkyl, cycloalkyl, or benzyl.
- R^2 , R^3 , R^4 and R^5 , independently of one another, are C_1 - C_{10} -alkyl, where R^1 , R^2 , R^3 , R^4 and R^5 may be different or identical, and
 - R⁷ has been selected from the group consisting of -(NHR⁹), where R⁹ is H, alkyl having from 1 to 8 carbon atoms, cycloalkyl having from 3 to 10 carbon atoms, or alkylene having from 2 to 20 carbon atoms, carboxy, and carboxylic acid derivatives, and

with a copolymer B), selected from

- B1) a rubber-free random copolymer, containing, as monomeric units.
 - b11) a styrene monomer.
 - b12) a monomer which contains a functional group which can react with the end groups of the polyamide present in component A), and
 - b13) a monomer which contains no functional groups which react with the end groups of the polyamide present in component A),

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- B2) a block copolymer of Y-X structure, containing
 - B21) from 95 to 99.5% by weight of block Y, containing, as monomeric units.
 - b21) a mixture composed of

b211) a styrene monomer, and

b212) a comonomer other than maleic anhydride, or

b22) an ethylenically unsaturated ester

5 and

B22) from 0.5 to 5% by weight of block X, composed of a styrene monomer and of a copolymerizable anhydride, or of a copolymerizable acid, or of a mixture of these, as monomeric units, where the block X has, in essence, a strictly alternating structure;

where the entirety of the components B21) and B22) is 100%, and

- B3) a rubber-free, random copolymer, containing, as monomeric units
 - b31) methyl methacrylate.
 - b32) a copolymerizable anhydride, or a copolymerizable acid, or a mixture of these, and
 - b33) also, if desired, methacrylic esters or acrylic esters, or a mixture of these

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 The use of polyamide A1), containing at least one end group derived from a piperidine compound of the formula (I)

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R is an amide-forming group R⁷ or a functional group R⁸ which bears from 1-4 identical or different amide-forming groups R⁷.

R¹ is H, C₁-C₂₀-alkyl, cycloalkyl, benzyl, or OR⁶, where

R⁶ is H, C₁-C₂₀-alkyl, cycloalkyl, or benzyl,

 R^2 , R^3 , R^4 and R^5 , independently of one another, are C_1 - C_{10} -alkyl, where R^1 , R^2 , R^3 , R^4 and R^5 may be different or identical, and

R⁷ has been selected from the group consisting of -(NHR⁸), where R⁹ is H, alkyl having from 1 to 8 carbon atoms, cycloalkyl having from 3 to 10 carbon atoms, or alkylene having from 2 to 20 carbon atoms, carboxy, and carboxy derivatives, and

as color stabilizer for rubber-modified thermoplastic molding compositions.

- 11. The use of the thermoplastic molding compositions as claimed in any of claims 1 to 7, or prepared as claimed in claim 8, for producing moldings, foils, fibers, or foams.
- A molding, a foil, a fiber, or a foam, obtainable using thermoplastic molding compositions as claimed in any of claims 1 to 7, or prepared as claimed in claim 8.
 - A vehicle-interior component obtainable using moldings, foils, fibers, or foams as claimed in claim 12.